



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/542,657	07/19/2005	Hiroaki Sudo	L9289.05155	8923
53989 7590 06/19/2009				
Dickinson Wright PLLC				
James E. Ledbetter, Esq.				
International Square				
1875 Eye Street, N.W., Suite 1200				
Washington, DC 20006				
EXAMINER				
DONABED, NINOS J				
ART UNIT		PAPER NUMBER		
2444				
MAIL DATE		DELIVERY MODE		
06/19/2009		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/542,657

Applicant(s)

SUDO, HIROAKI

Examiner

NINOS DONABED

Art Unit

2444

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 March 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 9-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 9-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SF/ICE)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

Response to Amendment

1. This office action is in response to Applicants amendment dated 03/09/2009. Claims 9 and 12 have been amended. Claims 9-14 are pending in the application.

Information Disclosure Statement

2. Documents under the foreign documents, 2004/15143 and 2004/282249 were not taken into consideration by the examiner because an English translation abstract was not present at the time of examination.

All documents under other documents that are stricken through were not considered by the examiner because copies of them were not provided with the application.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 9-14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
5. Regarding claim 9 and 12, the phrase "a home agent that stores a home address of the communication terminal apparatus, which issues the first care-of address and the second care-of address by the mobility anchor point" is vague and unclear as it is not

Art Unit: 2444

understood whether the home agent or the mobility anchor point is issuing the second care-of-address.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 9-10, 12-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Venkitaraman (United States Patent Application Publication 2003/0185196) in view of Vivaldi ("Fast handover algorithm for hierarchical mobile IPv6 macro-mobility Management") further in view of Valko (United States Patent Number 7269425.)

Venkitaraman teaches a communication system comprising: an access router that communicates with a communication terminal apparatus and transmits a first care-of address and a second care-of address to the communication terminal apparatus; **(See figure 1 and 2 and paragraphs [0022] - [0025], the access routers transmit the care-of-address to the mobile node.)**

a home agent that stores a home address of the communication terminal apparatus which issues the first care-of address and the second care-of address, by the mobility anchor point, in association with the first care-of address and the second care-of address of every communication terminal apparatus, and transmits data that is

transmitted to the home address of the communication terminal apparatus, to a destination indicated by the first care-of address and the second care-of address; and **(See figure 1 and 2 and paragraphs [0025] - [0026] and Claim 8, a home agent stores the care-of-address and the real address and transmits data to the mobile node.)**

a network that connects the mobility anchor point and the access router, and transmits the first care-of address and the second care-of address to the home agent. **See figure 1 and 2 and paragraphs [0022] - [0025], a network connects the mobility anchor point and access routers to a home agent with which a mobile node belongs to.)**

Venkitaraman does not explicitly teach a mobility anchor point that issues the two care-of addresses of the first care-of address and the second care-of-address, which is effective in adjacent cells across a boundary of a first mobility anchor point and a second mobility anchor point, to the communication terminal apparatus that communicates with access routers in the adjacent cells.

Vivaldi teaches a mobility anchor point that issues the two care-of addresses of the first care-of address and the second care-of address, to the communication terminal apparatus that communicates with the access routers. **(See page 1 left column and page 2 left and right columns and figures 1-3, Vivaldi teaches a MAP issuing two COA's to a mobile node)**

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have known to combine the teachings of Vivaldi with the system

of Venkitaraman because both deal with Mobile Nodes and handoff and handover technologies. The advantage of incorporating the mobility anchor point that issues the two care-of addresses of the first care-of address and the second care-of address, which is effective in adjacent cells across boundary of a first mobile anchor point and a second mobile anchor point, to the communication terminal apparatus that communicates with the access routers in adjacent cells, of Vivaldi, into the teachings of Venkitaraman because it improves handover management thus making the system more robust and efficient. **(See page 2, Vivaldi.)**

Vivaldi does not explicitly teach the second care-of address, which is effective in adjacent cells across boundary of a first mobile anchor point and a second mobile anchor point, to the communication terminal apparatus that communicates with the access routers in adjacent cells.

Vivaldi teaches a router that issues the two care-of addresses of the first care-of address and the second care-of address, which is effective in adjacent cells across boundary of a first mobile anchor point and a second mobile anchor point, to the communication terminal apparatus that communicates with the access routers in adjacent cells. **(See column 1 line 37- column 2 line 44, Valko.)**

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have known to combine the teachings of Valko with the system of Vivaldi because both deal with Mobile Nodes and handoff and handover technologies. The advantage of incorporating the mobility anchor point that issues the two care-of addresses of the first care-of address and the second care-of address,

Art Unit: 2444

which is effective in adjacent cells across boundary of a first mobile anchor point and a second mobile anchor point, to the communication terminal apparatus that communicates with the access routers in adjacent cells, of Valko, into the teachings of Vivaldi is that the system is separate from the routing, provides a centralized entity and removes the need to add paging related functions to access routers and to configure them according to paging settings, and it improves handover management thus making the system more robust and efficient. **(See column 1, Valko)**

Regarding **Claim 10**,

Venkitaraman, Vivaldi, and Valko teach the communication system according to claim 9, wherein the mobility anchor point makes variable the number of the adjacent cells in which the second care-of address is effective. **(See column 1 line 37- column 2 line 44, Valko.) See motivation claim 9.**

Regarding **Claim 12**,

Claim 12 list all the same elements of **claim 9**, but in system form rather than method form. Therefore, the supporting rationale of the rejection to **claim 9** applies equally as well to **claim 12**.

Regarding **Claim 13**,

Claim 13 list all the same elements of **claim 10**, but in system form rather than method form. Therefore, the supporting rationale of the rejection to **claim 10** applies equally as well to **claim 13**.

8. Claims 11 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Venkitaraman (United States Patent Application Publication 2003/0185196) in view of Vivaldi ("Fast handover algorithm for hierarchical mobile IPv6 macro-mobility Management") further in view of Valko (United States Patent Number 7269425) further in view of Chubbs III (United States Patent Number 6400304)

Regarding Claim 11,

Venkitaraman, Vivaldi, and Valko teach the communication system according to claim 10, wherein the mobility anchor point detects the moving speed of the communication terminal apparatus, and when communicating with the communication terminal apparatus moving at high speed, makes the number of the adjacent cells larger than in a case of communicating with the communication terminal apparatus moving at low speed. **See Figure 1 and 2 and paragraphs [0020] – [0029])**

Chubbs, III. teaches an integrated GPS system which can detect the speed of a car. **(See Abstract and Column 1 Line 60 – Column 2 Line 26, Chubbs III .)**

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have known to combine Venkitaraman, Vivaldi and Valko with Chubbs, III because GPS systems commonly detect speed of vehicles and mobile

nodes are commonly used in vehicles, thus a combination of the inventions would provide for a mobility anchor point system which could detect the speed of a mobile node.

The mobility anchor point after knowing the speed of the mobile node using the GPS system could have issued another care-of-address to a larger group of cells after detecting the speed of the mobile network because this would help increase the efficiency of the connection during handoff of the mobile device, and ultimately protect the integrity of the mobile connection.

Regarding **Claim 14**,

Claim 14 list all the same elements of **claim 11**, but in system form rather than method form. Therefore, the supporting rationale of the rejection to **claim 11** applies equally as well to **claim 14**.

Response to Arguments

9. Applicant's arguments with respect to claim 9-14 have been considered but are moot in view of the new ground(s) of rejection. The amendment to the claims necessitated the new ground(s) of rejection because "a home agent that stores a home address of the communication terminal apparatus which issues the first care-of address and the second care-of address by the mobility anchor point, in association with the first care-of address and the second care-of address of every communication terminal

apparatus" changes the scope of the claims and required a further search and consideration on the part of the examiner.

Conclusion

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

11. Any response to this Office Action should be **faxed** to (571) 272-8300 or **mailed** to:

Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

***Hand-delivered responses should be brought to
Customer Service Window***

Art Unit: 2444

Randolph Building
401 Dulany Street
Alexandria, Virginia 22314

Any inquiry concerning this communication or earlier communications from the examiner should be directed to NINOS DONABED whose telephone number is (571)270-3526. The examiner can normally be reached on Monday-Friday, 7:30 AM-5:00 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Vaughn can be reached on (571) 272-3922. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/N. D./
Examiner, Art Unit 2444
/William C. Vaughn, Jr./
Supervisory Patent Examiner, Art Unit 2444